

F Jure 3 9/14

User/Client

Process with
Authentication Call
(LOGIN.EXE)

Authentication
Module

Initiate

330 Authentication

Request Random
Number (RN)

332

Generate RN

334

344 Enter Username,
Password

Modify Process' Task
Structure

Store RN

338

Send RN

340

344 Generate Hash
(Password + RN)

346 Send Username,
Hash

Check Process' Task
Structure for Pending
Authentication

Retrieve RN

350

Retrieve Password
associated with Username

Generate Hash
(Password + RN)

354

Compare Hash Values

Modify Process' Task
Structure

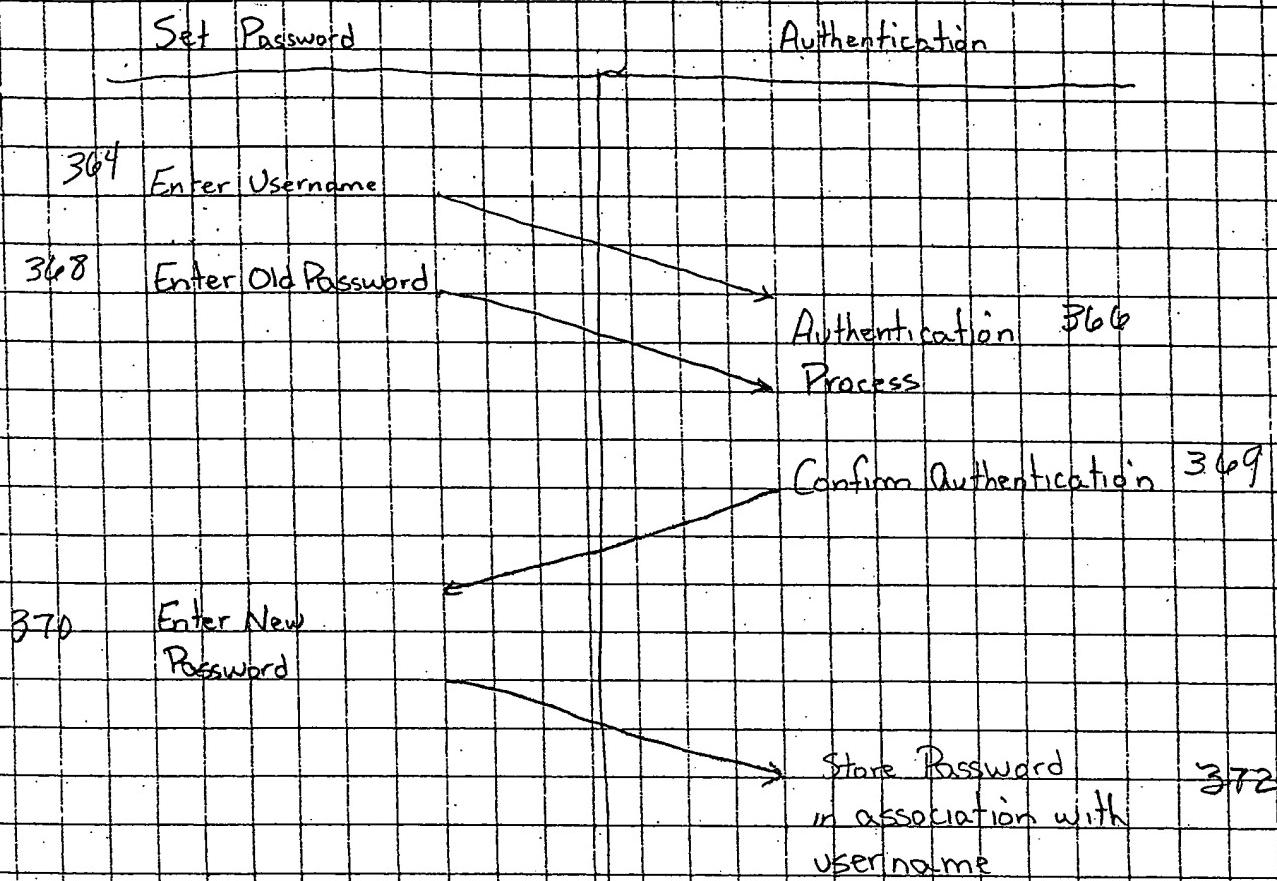
Set user =
username

Confirm Authentication
Set user = username

360

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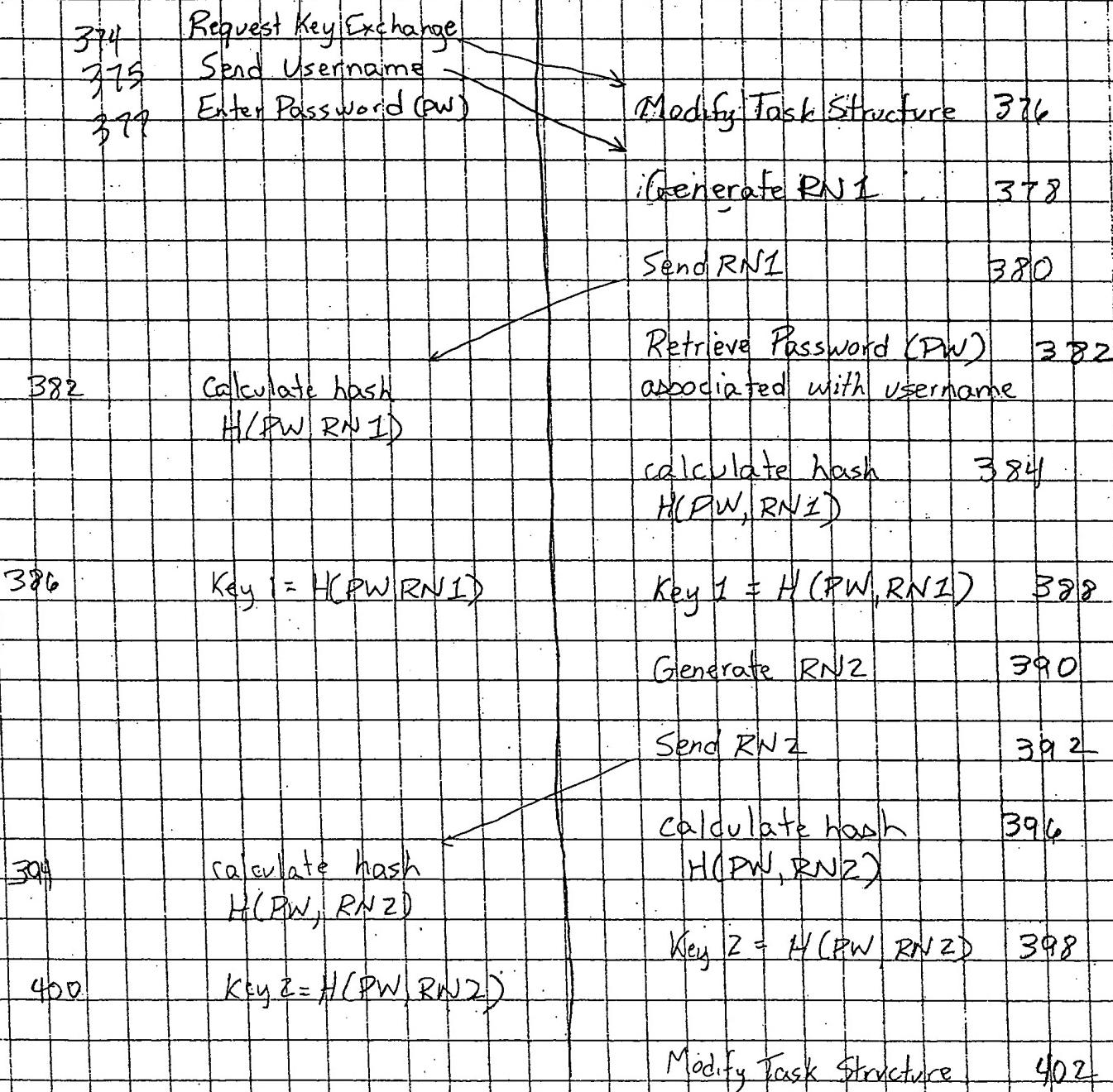
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15

Key Exchange

Client

Server



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Eng 16

Buyer POS PBS Server Financial Server

+ Initiate Purchase

Display Credit Card Options.

406

Select Credit Card

Send CC identifier.

410

→ read CC number associated with CC identifier

412

→ Process transaction

414

Send Approval or Denial

418 Complete Transaction. ← generate new CC identifier

420

replace CC identifier

422

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Fig 17

Client A

PBS

Client B

424 Initiate Session

Authenticate

Client A

425

428 Send File
for Client B

Store File in

space accessible

to Client B

430

Initiate Session

432

Authenticate

Client B

434

Access File

436

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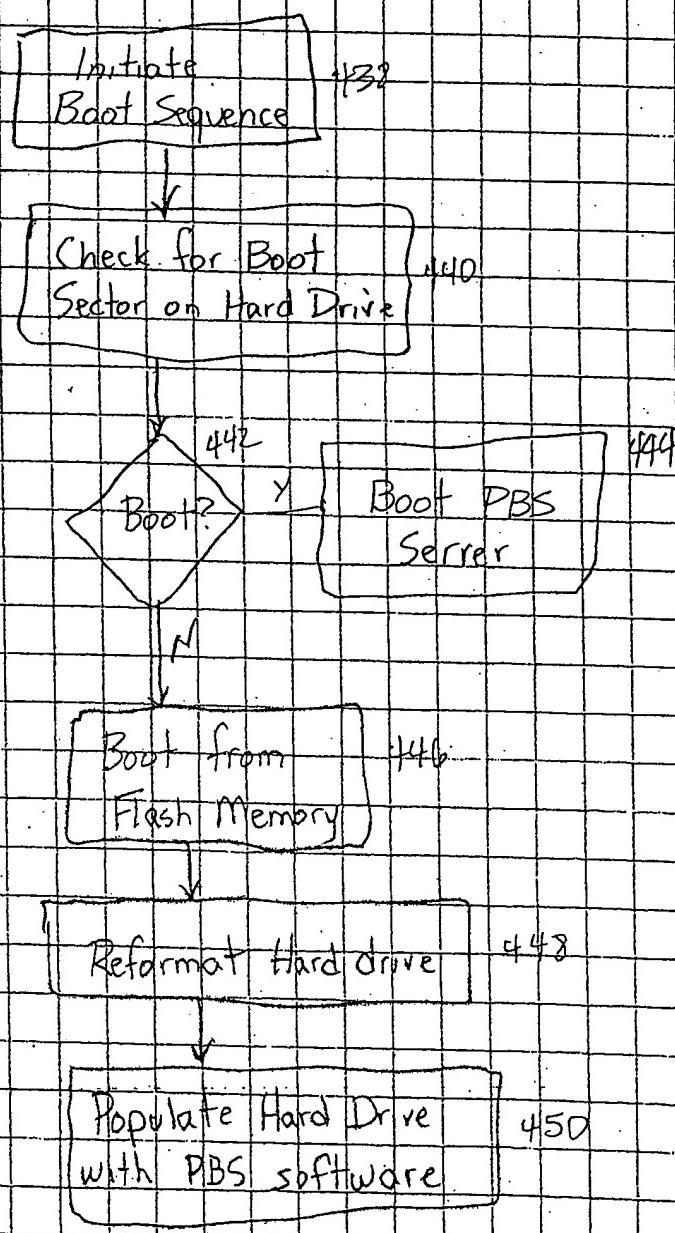


Fig 18

